



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,161	08/30/2004	Peter King	108347-00032	6683
4372	7590	12/13/2007		
ARENT FOX LLP 1050 CONNECTICUT AVENUE, N.W. SUITE 400 WASHINGTON, DC 20036			EXAMINER LEFF, STEVEN N	
			ART UNIT 1794	PAPER NUMBER
			NOTIFICATION DATE 12/13/2007	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DCIPDocket@arentfox.com  
IPMatters@arentfox.com  
Patent\_Mail@arentfox.com

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/505,161	KING, PETER	
	Examiner	Art Unit	
	Steven Leff	1794	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/30/04, 10/3/06</u> .                                        | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Election/Restrictions*

Applicant's election with traverse of Group II in the reply filed on 10/12/07 is acknowledged. The traversal is on the ground(s) that there is no longer any basis for the restriction requirement due to claim 1 being amended to require the same special technical feature as is recited in Group II .

Because all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, **the restriction requirement as set forth in the Office action mailed on 9/19/07 is hereby withdrawn**. In view of the withdrawal of the restriction requirement as to the rejoined inventions, applicant(s) are advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application. Once the restriction requirement is withdrawn, the provisions of 35 U.S.C. 121 are no longer applicable. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

### *Claim Objections*

- The word "sitting" is misspelled in claim 5 line 4. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

- Claims 5-9 are rejected under 35 U.S.C. 112, sixth paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
  - With respect to claim 5, the phrase a "means for charging said electrode" is rejected as the specification does not provide structural limitations. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, as MPEP 2181 II states that 35 U.S.C. 112, sixth paragraph states that a claim limitation expressed in means-plus-function language "shall be construed to cover the corresponding structure...described in the specification and equivalents thereof." "If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and

distinctly claim the invention as required by the sixth paragraph of section 112,” where in the instant case the specification does not provide structural limitations with respect to the “means for charging said electrode” at paragraphs 0022, and 0025.

- With respect to claim 6, the phrase a “means for vibrating or shaking the chute” is rejected as the specification does not provide structural limitations. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, as MPEP 2181 II states that 35 U.S.C. 112, sixth paragraph states that a claim limitation expressed in means-plus-function language “shall be construed to cover the corresponding structure...described in the specification and equivalents thereof.” “If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the sixth paragraph of section 112,” where in the instant case the specification does not provide structural limitations with respect to the “means for vibrating or shaking the chute” at paragraph 0024.
- With respect to claim 9, the phrase a “means for coupling the nozzle to a supply of pressurized gas or liquid” is rejected as the specification does not provide structural limitations. While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, as MPEP 2181 II states that 35 U.S.C. 112, sixth paragraph states that a claim limitation expressed in means-plus-function language “shall be construed to cover the corresponding structure...described in the specification and equivalents thereof.” “If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the sixth paragraph of section 112,” where in the instant case the specification does not provide structural limitations with respect to the “means for coupling the nozzle to a supply of pressurized gas or liquid” at paragraphs 0021, and 0027.
- With respect to claim 9, the phrase a “means for coupling the electrode to a high voltage charging means” is rejected as the specification does not provide structural limitations.

While features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, as MPEP 2181 II states that 35 U.S.C. 112, sixth paragraph states that a claim limitation expressed in means-plus-function language “shall be construed to cover the corresponding structure...described in the specification and equivalents thereof.” “If one employs means plus function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in effect failed to particularly point out and distinctly claim the invention as required by the sixth paragraph of section 112,” where in the instant case the specification does not provide structural limitations with respect to the “means for coupling the electrode to a high voltage charging means” at paragraphs 0029, 0038, 0048, and 0049.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- Claims 1, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Dunaway (3114482).

With respect to claims 1, and 4, Dunaway teaches a method of coating a product carried on a surface of a delivery mechanism, with a coating substance, where it is noted that the table depicted by reference #12 is taken to be the surface of the delivery mechanism as the table is used to deliver the product under the coating apparatus as is taught in figure 1. More specifically, Dunaway teaches the method comprises delivering the coating substance to a location above said surface carrying (fig. 1) said product via an inclined chute (fig. 1 ref. # 40, col. 2 line 56+) down which the coating substance falls under gravity (col. 3 line 55+), in the direction of said surface from the end of the inclined chute (col. 3 line 55+). Dunaway continues by teaching that during its fall under gravity, and substantially immediately beneath the exit end of said inclined chute (fig. 1 ref. #62), subjecting the coating substance to at least one pressurized gas stream delivered



by a gas jet nozzle (fig. 1 ref. #62, col. 3 line 7+, col. 3 line 10+), whereby the falling coating substance is dispersed, and to an electric field generated by an electrode (col. 3 line 21+) attached to or located adjacent to the nozzle (fig. 1, fig. 3 ref. # 72), whereby the coating substance is charged (col. 3 line 21+). With respect to the limitation "gas jet nozzles", it is noted that Dunaway teaches specifically defined and sized holes which have been formed in a tube (col. 3 line 2+), in addition to teaching the ability to cause the holes to rotate for causing the air curtain to be in a specific direction (col. 3 line 2+), and thus since a nozzle provides focused dispensing, in addition to increasing the pressure of the fluid as it exits therefrom, the defined tubes of Dunaway with defined openings are taken to be gas jet nozzles. Dunaway continues by teaching that the pressurized gas stream impinges upon the coating substance prior to subjection to said electric field (col. 3 line 13+).

- Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Gimple (3964683).

With respect to claim 9, Gimple teaches an apparatus for use in coating a product with a coating substance (abstract). More specifically Gimple teaches a gas or liquid jet nozzle having means for coupling the nozzle to a supply of pressurized gas or liquid (col. 5 line 39+), a nozzle holder to which the jet nozzle can be removably attached (col. 3 line 20+), a needle electrode attached to the nozzle holder (col. 3 line 35+) and means for coupling the electrode to a high voltage charging means (col. 4 line 44+) where the needle electrode is located such that in use when gas or liquid is ejected from the nozzle the gas or liquid passes through an electric field created by the electrode (col. 3 line 55+).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- Claim 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yonkers et al. (3221938) in view of Watkins (3468691).

With respect to claims 1-8, Yonkers et al. teaches a method of, with a coating substance. More specifically, Yonkers et al. teaches the method comprises delivering the coating substance to a location above said surface carrying (fig. 4) said product via an inclined chute (fig. 4 ref. #70, #72, col. 3 line 43+) down which the coating substance falls under gravity (col. 2 line 60+), in the direction of said surface from the end of the inclined chute (fig. 4). Yonkers et al. continues by teaching that during its fall under gravity, and substantially immediately beneath the exit end of said inclined chute (fig. 4 ref. #95), subjecting the coating substance to at least one pressurized gas stream delivered by a gas jet nozzle (fig. 4 ref. #'s 95, and 97, col. 4 line 32+), whereby the falling coating substance is dispersed, and to an electric field generated by an electrode (fig. 4 ref. #79, col. 3 line 65+) attached to or located adjacent to the nozzle (fig. 4, col. 4 line 6+), whereby the coating substance is charged (fig. 4, col. 4 line 20+). With respect to the limitation "gas jet nozzles", it is noted that Yonkers et al. teaches specifically defined holes which have been formed in a tube (col. 4 line 30+), in addition to teaching the desire to cause the holes to be focused in a specific direction (col. 4 line 30+) and referring to the small holes as air jets (col. 4 line 30+), and since a nozzle provides focused dispensing, in addition to increasing the pressure of the fluid as it exits therefrom, the defined tubes of Yonkers et al. with defined openings are taken to be gas jet nozzles.

Yonkers et al. continues by teaching that the pressurized gas stream is subjected to the electric field prior to impinging upon the coating substance (fig. 4, col. 4 line 14+) with respect to nozzle 97 of figure 4, and that the pressurized gas stream impinges upon

the coating substance prior to subjection to said electric field with respect to the gas stream which exits from reference # 95. Yonkers continues by teaching an apparatus which further comprises a means for charging the electrode (col. 4 line 16+), wherein in use gas ejected from said nozzle passes over said electrode and is charged (col. 4 line 20+), and impinges on the coating substance falling from the exit end of the chute (col. 4 line 44+).

However Yonkers et al. is silent with respect to coating a product carried on a surface of a delivery mechanism, and vibrating or shaking the chute to disperse the coating substance and to aid transfer of the substance along the chute.

Watkins teaches a method and apparatus for flavoring food products. More specifically Watkins teaches coating a product carried on a surface of a delivery mechanism (col. 5 line 32+), and vibrating or shaking the chute to disperse the coating substance and to aid transfer of the substance along the chute (col. 5 line 26+).

Therefore although Yonkers et al. does not teach coating a product carried on a surface of a delivery mechanism, Yonkers et al. does teach coating on freshly printed sheets (col. 1 line 14+), and where Watkins teaches the product being carried on a surface of a delivery mechanism (col. 5 line 32+), it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have combine the teaching of Yonkers et al. and Watkins and taught that the product is carried on a surface of a delivery mechanism since both Yonkers et al. and Watkins teach the desire to provide a method of coating using an electric field, since Yonkers et al. teach printing on freshly printed sheets (col. 1 line 14) where providing a continuous process would allow the coating to be provided immediately after printing thereby reducing the risk of smearing, etc., and since Watkins positively teaches the use of a delivery mechanism for it's art recognized and applicant's intended purpose of providing a continuous process thereby increasing profits as the subsequent coatings are performed without any down time since the products to be coated are continually delivered to the coating area. It would have further been obvious since MPEP 2144.07 states that the selection of a known process based on its suitability for its intended use supports a prima facie obviousness determination.

Further although Yonkers et al. does not teach vibrating or shaking the chute to disperse the coating substance and to aid transfer of the substance along the chute,



Yonkers et al. does teach providing a roller within the hopper to aid in the flow of the coating agent (col. 3 line 52+) out of the hopper. Further Watkins teaches vibrating or shaking the chute to disperse the coating substance and to aid transfer of the substance along the chute (col. 5 line 28+), thus it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have combine the teaching of Yonkers et al. and Watkins and taught vibrating or shaking the chute to disperse the coating substance and to aid transfer of the substance along the chute since both Yonkers et al. and Watkins teach the desire to provide a method of coating using an electric field where dispersion is desired (abstracts), since Yonkers et al. teach providing a roller within the hopper to aid in the flow of the coating agent (col. 3 line 52+) out of the hopper, where providing vibration or shaking would allow the coating to be continuously agitated thereby aiding the effect of gravity and thus providing a more consistent and even flow of the coating product as it exits the inclined chute toward the product, and since Watkins positively teaches vibrating or shaking the chute to disperse the coating substance and to aid transfer of the substance along the chute (col. 5 line 28+) for it's art recognized and applicant's intended purpose of providing a continuous, and consistent process thereby increasing profits as the subsequent coatings are performed in a more uniform manner and at a continuous rate in addition to help reduce agglomeration of the coating since it has been agitated. It would have further been obvious since MPEP 2144.07 states that the selection of a known process based on its suitability for its intended use supports a prima facie obviousness determination.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d

887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

- Claims 1-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 copending Application No. 11/166175 in view of Dunaway 3114482). Although the conflicting claims are not identical, they are not patentably distinct from each other because although claim 1 of patent application 11/166175 does not recite an inclined chute or a gas jet nozzle, Dunaway does teach the use of both an inclined chute and a gas jet nozzle. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have taught an inclined chute, as is taught by Dunaway (3114482, fig. 1 ref. #40) for its art recognized and applicant's intended purpose of aiding the flow of the coating material out of the hopper, as is taught by Dunaway (col. 3 line 66+). It would have further been obvious to provide a gas jet nozzle to one of ordinary skill in the art at the time of the invention by the applicant, as is taught by Dunaway (3114482, fig. 1 ref. #62) for its art recognized and applicant's intended purpose of aiding the flow of the coating material out of the hopper, and toward a specific direction, namely the direction of the product to be coated as is taught by Dunaway (col. 3 line 9+). This is a provisional obviousness-type double patenting rejection.
- Claims 1-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 copending Application No. 10/959300 in view of Dunaway (3114482). Although the conflicting claims are not identical, they are not patentably distinct from each other because although claim 1 of patent application 10/959300 does not recite an inclined chute or a gas jet nozzle, Dunaway does teach the

use of both an inclined chute and a gas jet nozzle. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have taught an inclined chute, as is taught by Dunaway (3114482, fig. 1 ref. #40) for its art recognized and applicant's intended purpose of aiding the flow of the coating material out of the hopper, as is taught by Dunaway (col. 3 line 66+). It would have further been obvious to provide a gas jet nozzle to one of ordinary skill in the art at the time of the invention by the applicant, as is taught by Dunaway (3114482, fig. 1 ref. #62) for its art recognized and applicant's intended purpose of aiding the flow of the coating material out of the hopper, and toward a specific direction, namely the direction of the product to be coated as is taught by Dunaway (col. 3 line 9+). This is a provisional obviousness-type double patenting rejection.

- Claims 1-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 copending Application No. 11/141050 in view of Dunaway (3114482). Although the conflicting claims are not identical, they are not patentably distinct from each other because although claim 3 of patent application 11/141050 does not recite a gas jet nozzle, Dunaway does teach the use of a gas jet nozzle. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to have taught a gas jet nozzle, as is taught by Dunaway (3114482, fig. 1 ref. #62) for its art recognized and applicant's intended purpose of aiding the flow of the coating material out of the hopper, and toward a specific direction, namely the direction of the product to be coated as is taught by Dunaway (col. 3 line 9+). This is a provisional obviousness-type double patenting rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Leff whose telephone number is (571) 272-6527. The examiner can normally be reached on Mon-Fri 8:30 - 5:00.

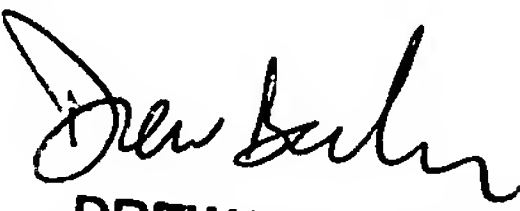
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached at (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/505,161  
Art Unit: 1794

Page 11

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SL

  
DREW BECKER  
PRIMARY EXAMINER

12/10/07